

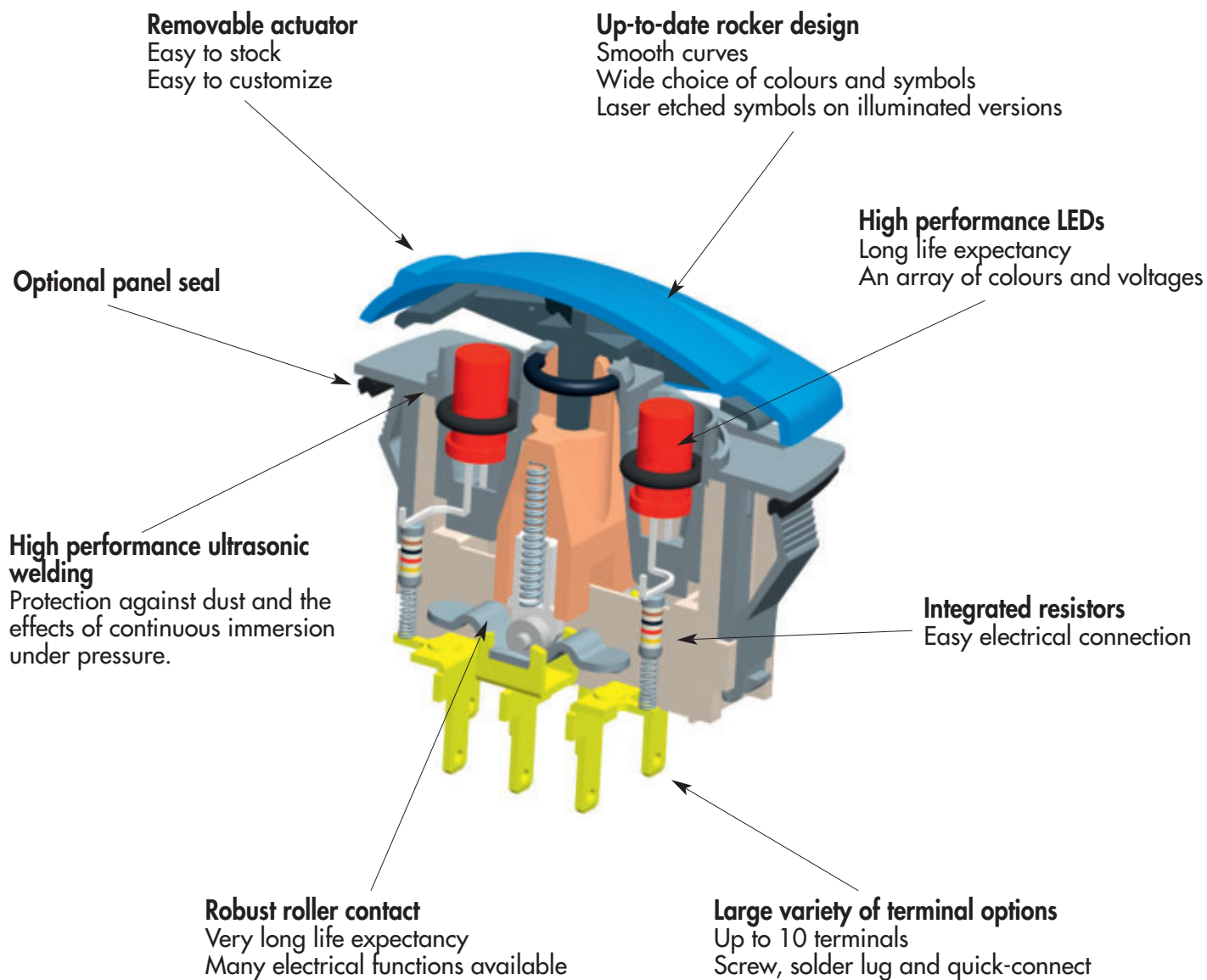
KR series

Power rocker switches

Distinctive features

New!

Attractive rugged rocker switch



APEM will be happy to develop custom product solutions. Please contact us with your requirements.

New!



- ☐ Unique rocker design
- ☐ Wide choice of colours
- ☐ Laser etched symbols
- ☐ Illuminated or non-illuminated
- ☐ Optionally sealed to IP68

ELECTRICAL SPECIFICATIONS

- Current/voltage rating with resistive load :
 - Silver contacts (A) : 5A 24VDC, 100.000 cycles
 - 10A 24VDC, 10.000 cycles (terminals 6.35 x 0.8 only)
 - Gold plated contacts (D) : 20mA 12V, 150.000 cycles
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : 2.000 Vrms 50 Hz min. between terminals
- Mechanical life : 150.000 cycles min.

MATERIALS

- Case : PA 6-6
- Actuator : ABS
- Bezel : PA 6-6
- Terminals : brass, silver plated
- Contacts : silver (A) or silver, gold plated (D)
- Contact roller : brass, nickel plated

ENVIRONMENTAL SPECIFICATIONS

- Degree of protection of sealed versions : frontal sealing to IP68 according to IEC 60529 (submersion under 1 meter of water for more than 30 minutes)
- Salt spray resistance : 96 hours according to IEC 512-6, test 11f
- Vibration resistance : 10-500 Hz / 10 g per IEC 60068-2-6
- Operating temperature : -40°C to +85°C

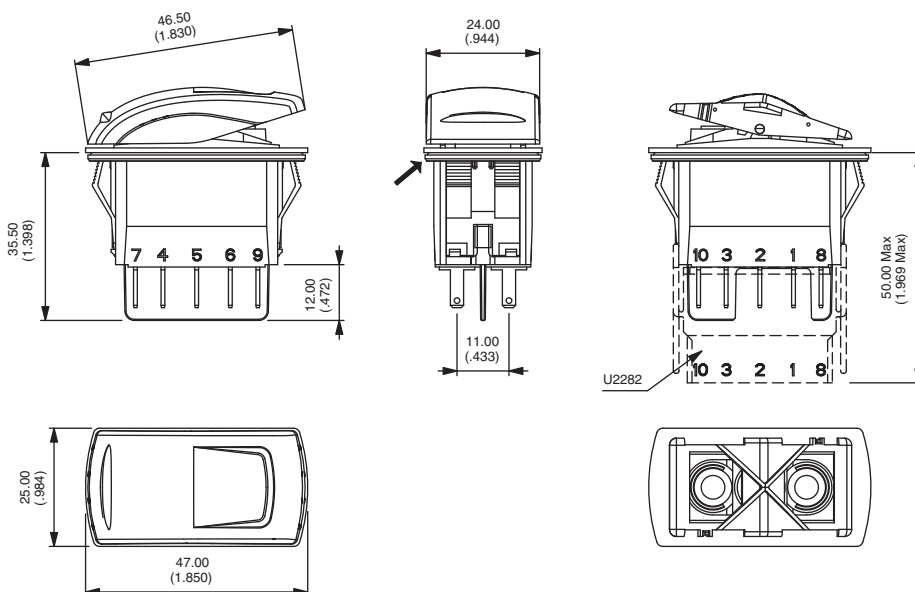
SEALING

Sealing is optional.

To order a sealed product, complete the appropriate box of ordering format on the following pages.

DIMENSIONS

→ Flat seal



Packaging unit : 40 pieces

Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

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Selection guide

HOW TO ORDER

- To order a complete product, fill in all the boxes of the following order guide.
- To order case only (without actuator), finish your order number with the LED wiring code.
- To order actuator only (without case), begin the order number with code KRR, then follow the order format from "actuator type" until the end of the options.

CASE + LEDS

KR							Side A	Side B	
SERIES	Electrical functions			Contacts	Sealing	LEDS		Wiring	
Poles									
3 Single pole				A Silver	X No	X None		See following pages.	
4 Double pole				D Gold plated	K Yes	A LED 6V red			
						B LED 6V green			
						C LED 6V yellow			
						M LED 6V blue			
						R LED 6V white			
						D LED 12V red			
						E LED 12V green			
						F LED 12V yellow			
						N LED 12V blue			
						S LED 12V white			
						J LED 24V red			
						K LED 24V green			
						L LED 24V yellow			
						P LED 24V blue			
						T LED 24V white			

Function 1 only for 6-terminal versions.
Functions 5 and 6 cannot be combined with "H" wiring.

Terminals

Screw

0 6 terminals with barrier

Solder lug/quick-connect

2 6 terminals with barrier

4 6 terminals w/o barrier

A 10 term. with barrier

B 10 term. w/o barrier

C 10 terminals for use with connector U2292

Quick-connect 6,35x0,8

3 6 terminals with barrier

Terminals (continued)

Quick-connect 6,35x0,8

5 6 terminals w/o barrier

D 10 term. with barrier

E 10 term. w/o barrier

F 10 term. for use with connector U2292

Quick-connect 2,8x0,8

G 10 term. with barrier

H 10 term. w/o barrier

J 10 terminals for use with connector U2282

ACTUATOR

Type	Colour
1 For non-illuminated application	1 Blue
2 For illuminated application	1/4 Dark blue
	2 Black
	3 Green
	4 Grey
	5 Yellow
	6 Red
	7 Ivory
	9 Orange
	A Aluminium bright

ACTUATOR MARKING

	Area A	Area M	Area B
Orientation	Symbols		
N			
O			
S			
E			

Symbols & Accessories : see end of section D.



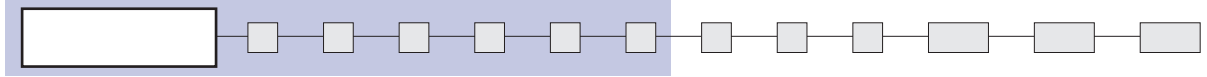
NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

New!

- To order case only (without rocker), finish your order number with the LED wiring code.

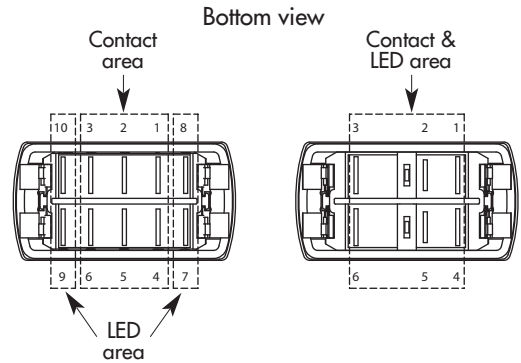
MODEL STRUCTURE

CASE + LEDS



		2-3 5-6	1-2 4-5
Single pole KR31	Double pole KR41	ON - OFF	
	KR44*	ON ON ON	
	KR44-1R*	ON ON MOM	
KR35	KR45	MOM - ON	
KR36	KR46	ON - ON	
KR37	KR47	MOM OFF MOM	
KR38	KR48	ON OFF MOM	
KR39	KR49	ON OFF ON	

* Function 4 : single pole in double pole case



10 terminal version

6 terminal version

ELECTRICAL FUNCTIONS AND CONNECTIONS

In the tables below, terminal connections as viewed from bottom of switch.
Only the contact area is represented.

For single pole models, only terminals 1, 2 and 3 are to be considered (not terminals 6, 5, 4).

x = w/o terminal
o = with terminal
▲ = momentary

	Positions		
Function 1 * KR31-KR41			
Function 5 KR35-KR45			
Function 6 KR36-KR46			
Function 7 KR37-KR47			

	Positions		
Function 8 KR38-KR48			
Function 9 KR39-KR49			
Function 4 KR44			
Function 4-1R KR44-1R			

* Function 1 only available for 6 terminal versions.

KR series

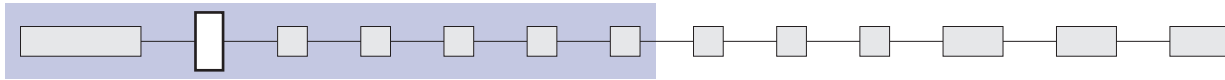
Power rocker switches

New!

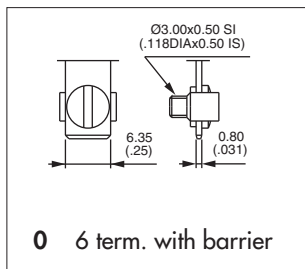
Case

TERMINALS

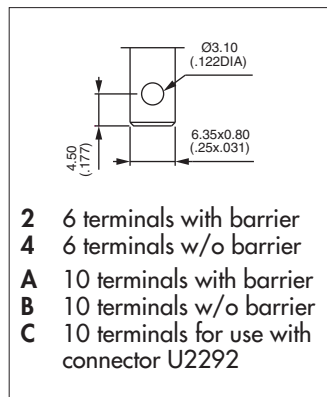
CASE + LEDS



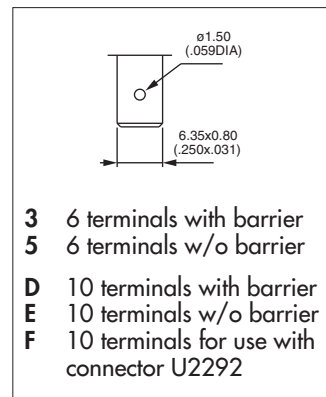
Screw



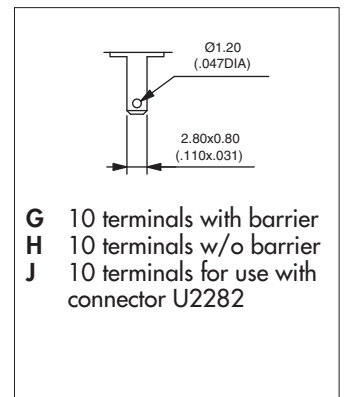
Solder lug / quick-connect



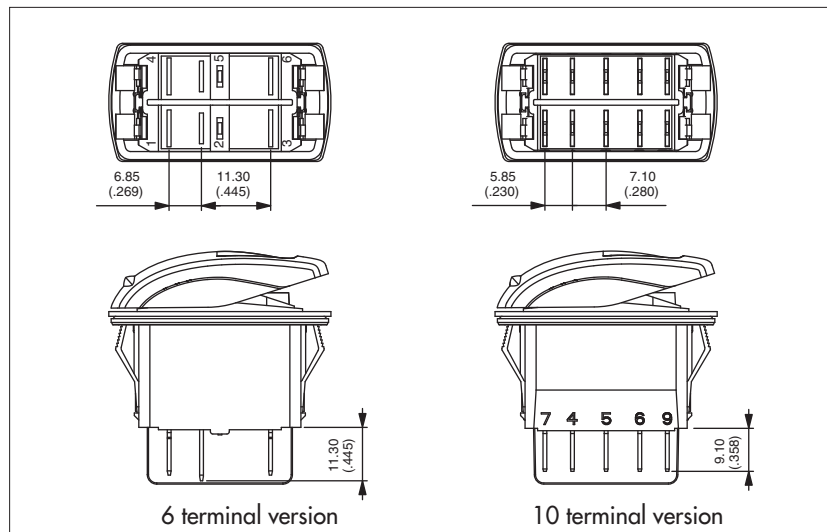
Normalized quick-connect 6,35x0,8



Normalized quick-connect 2,8x0,8



D

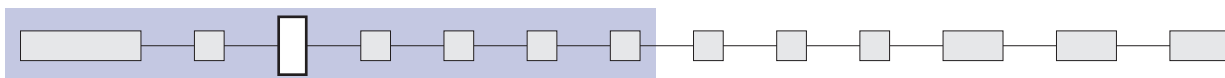


Terminals are marked on the case.

The drawings show the maximum possible number of terminals.

CONTACT MATERIALS

CASE + LEDS

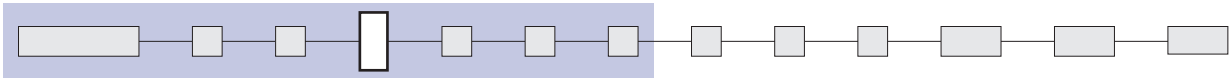


- A** Silver
- D** Silver, gold plated

New!

SEALING

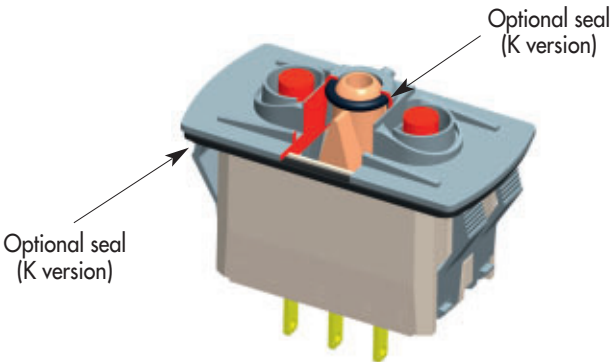
CASE + LEDS



- X** No sealing
- K** IP68 (switch assembled on panel)

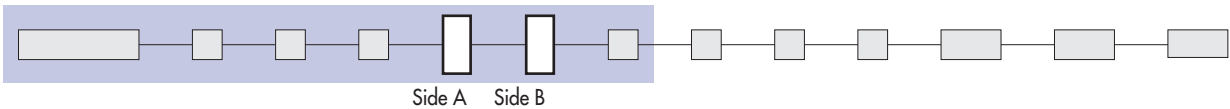
Ultrasonic welding of frame to case is standard on all versions.
The ultrasonic welding and the optional panel seal prevent water and dust from introducing into the switch housing.

*The product shall be installed professionally.
Test conditions available on request.*



LEDS

CASE + LEDS



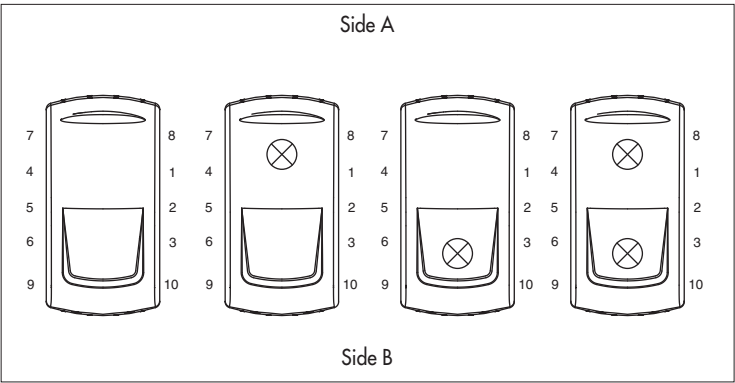
Complete each enlarged box with one of the codes listed below.

- X** Without LED

	Red	Green	Yellow	Blue	White
6VDC	A	B	C	M	R
12VDC	D	E	F	N	S
24VDC	J	K	L	P	T

LED consumption : 20mA @ nominal voltage (25°C)

Other illumination solutions : on request.



KR series

Power rocker switches

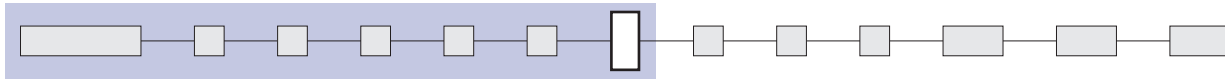
Case - LEDs

New!

WIRING

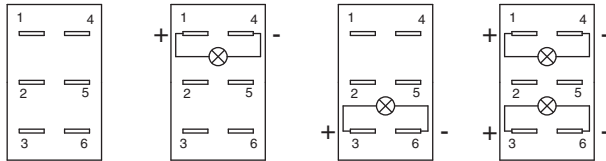
The LED wiring diagram is shown on the case.

CASE + LEDs

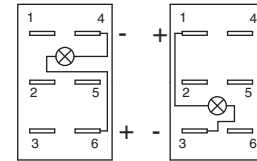


• For 6 terminal versions

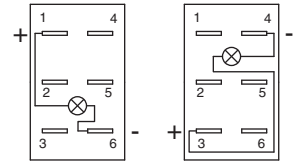
LED connected to the load



A (standard)

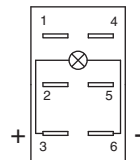


B

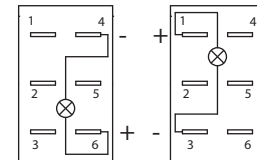


C

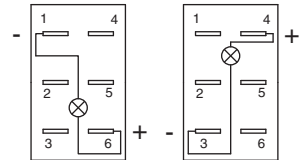
Note : If not available, terminals are added to connect the LED.



D - for function 1 (on-off) with LED on side A



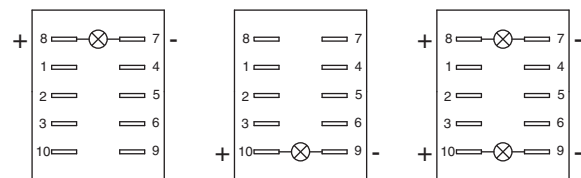
E



F

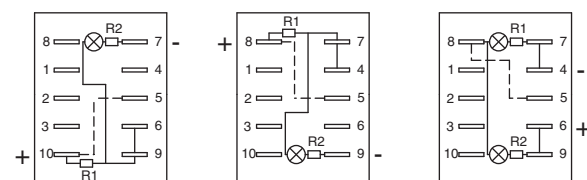
• For 10 terminal versions

Independent LED or integrated functions



G (standard)

To have independent LEDs.



H

To obtain 2 symbol illumination levels (night illumination when OFF and higher illumination when ON).

H wiring with LED on side A available with functions 6, 8, 9 and 44.

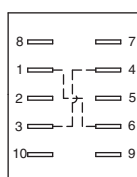
H wiring with LED on side B available with functions 5, 6 and 9.

H wiring with 2 LEDs available with functions 8 and 9.

More information (H wiring schematics) : on request.

Dotted line = external wiring, continuous line = internal wiring

Available in Single Pole only, with H and J quick-connect terminals.



I

To have a polarity inversion (typical application : fan motor).

Dotted line = external wiring

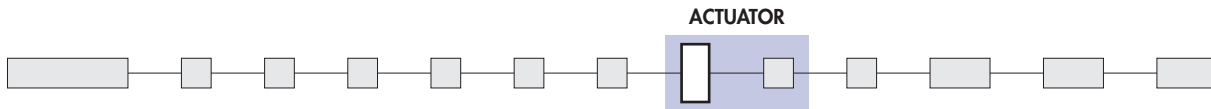
Power supply between 2 and 5 - Load between 1 and 4 or 3 and 6. Available with H and J quick-connect terminals.

Please contact us for other wiring solutions.

New!

To order actuator only (without case), begin the order number with code KRR, then follow the order format from "actuator type" until the end of the options.

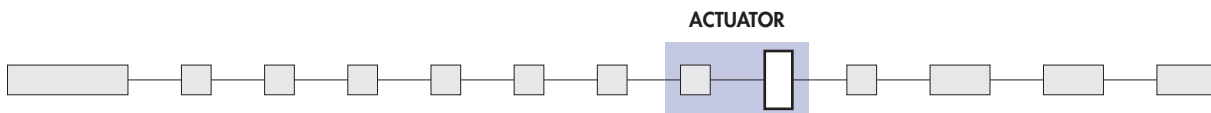
ACTUATOR TYPE



- 1 For non-illuminated application
- 2 For illuminated application

Other rocker design : on request.

ACTUATOR COLOUR



Code	Colour
1	Blue
1/4	Dark blue
2	Black
3	Green

Code	Colour
4	Grey
5	Yellow
6	Red
7	Ivory

Code	Colour
7/1	White
9	Orange
A	Aluminium bright

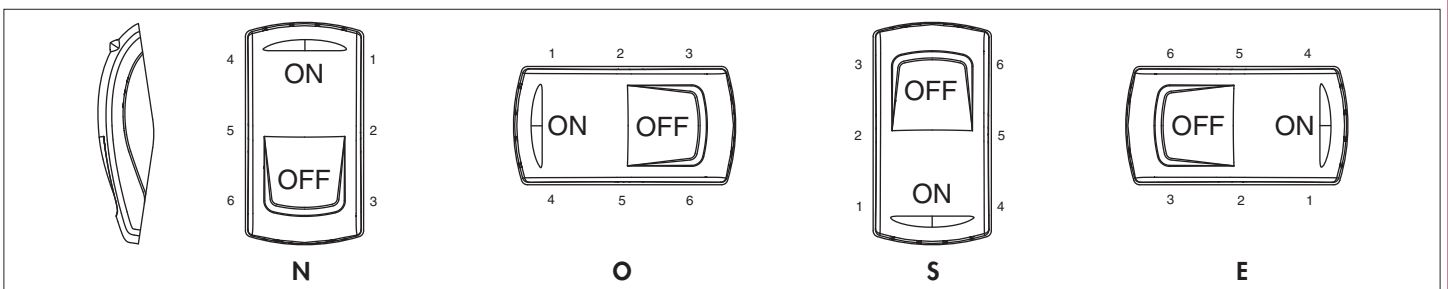
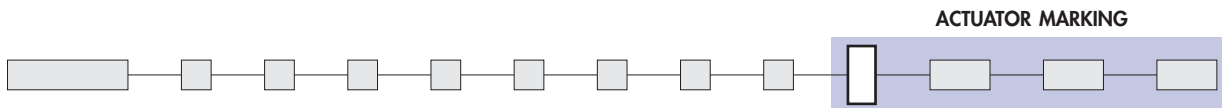
Note : colours 7 and 7/1 not available on illuminated versions.

A **soft-touch varnish** can be added. Consult us.



MARKING ORIENTATION

If no marking required, leave box blank.



Other orientations : on request

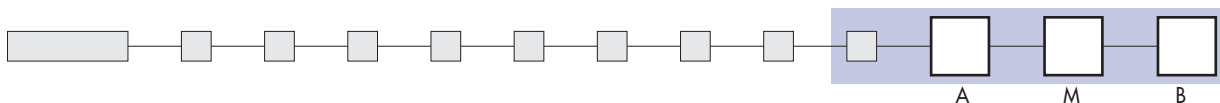
KR series

Power rocker switches

Marking - Mounting

New!

SYMBOLS



XX No symbol

Available symbols : see end of section D.

Marking colour

White marking for illuminated rockers (laser etching) and non-illuminated black rockers (pad printing). Black marking for non-illuminated colour rockers (pad printing). Other : on request.

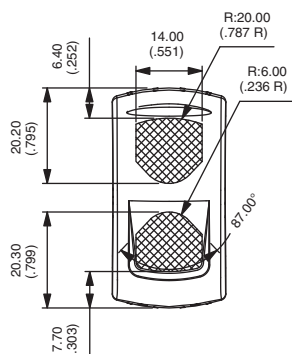
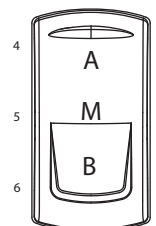
Laser etching resistance

- Water and petrol resistant according to EN61058-1
- Tear resistant (cross-cut test) according to NF ISO 2409 : class 0
- UV resistant according to ISO 4892-2

Marking area

For illuminated versions. The symbol will be included in the hatched area.

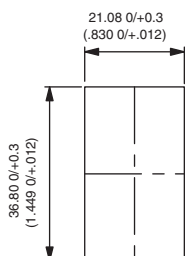
Marking in M are : on request.



SWITCH PANEL CUT-OUT

Panel thickness : 0,8 mm to 4,6 mm

Recommended panel thickness :
between 2 mm and 3,5 mm



MATRIX MOUNTING

